

A-44: Some plasma mineral levels and red cell parameters in Sri Lankans

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The main objective of this study was to measure some mineral levels in plasma in normal adults to obtain normal values as there are no values published for Sri Lankans.

Blood samples were collected into heparinized tubes when blood was drawn from the donors at the Blood Bank Teaching Hospital, Peradeniya. As there were only a few female donors, samples were also collected from female medical students. Red blood cell count (RBC) was done manually and packed cell volume (PCV) was measured using micro-haematocrit method.

Haemoglobin content (Hb) was measured by cyanmethaemoglobin method. These measurements were made on the day of collection of blood. Red cell indices (MCV, MCH and MCHC) were calculated using these results. Plasma levels of Cu, Zn, Ca and Mg were measured on 48 samples collected from males using flame atomic absorption spectrometry.

Mean (SD) age of males was 30.3 (7.7) years and of females was 24.5 (1.3). Haemoglobin concentration in males was 141 g/L (SD = 20) and in females was 109 g/L (SD = 19).

Mean levels ($\mu\text{mol/L}$) in healthy adult males ($n=48$) in plasma Cu (14.6), Zn (16.1), Ca (2.3), Mg (0.63), were comparable with the values that are considered normal for western populations. Five subjects (10%) had Cu values considered as deficient.

Males had significantly higher values for red cell parameters than females. However, Hb concentrations in both males and females in these samples were lower than for western populations.